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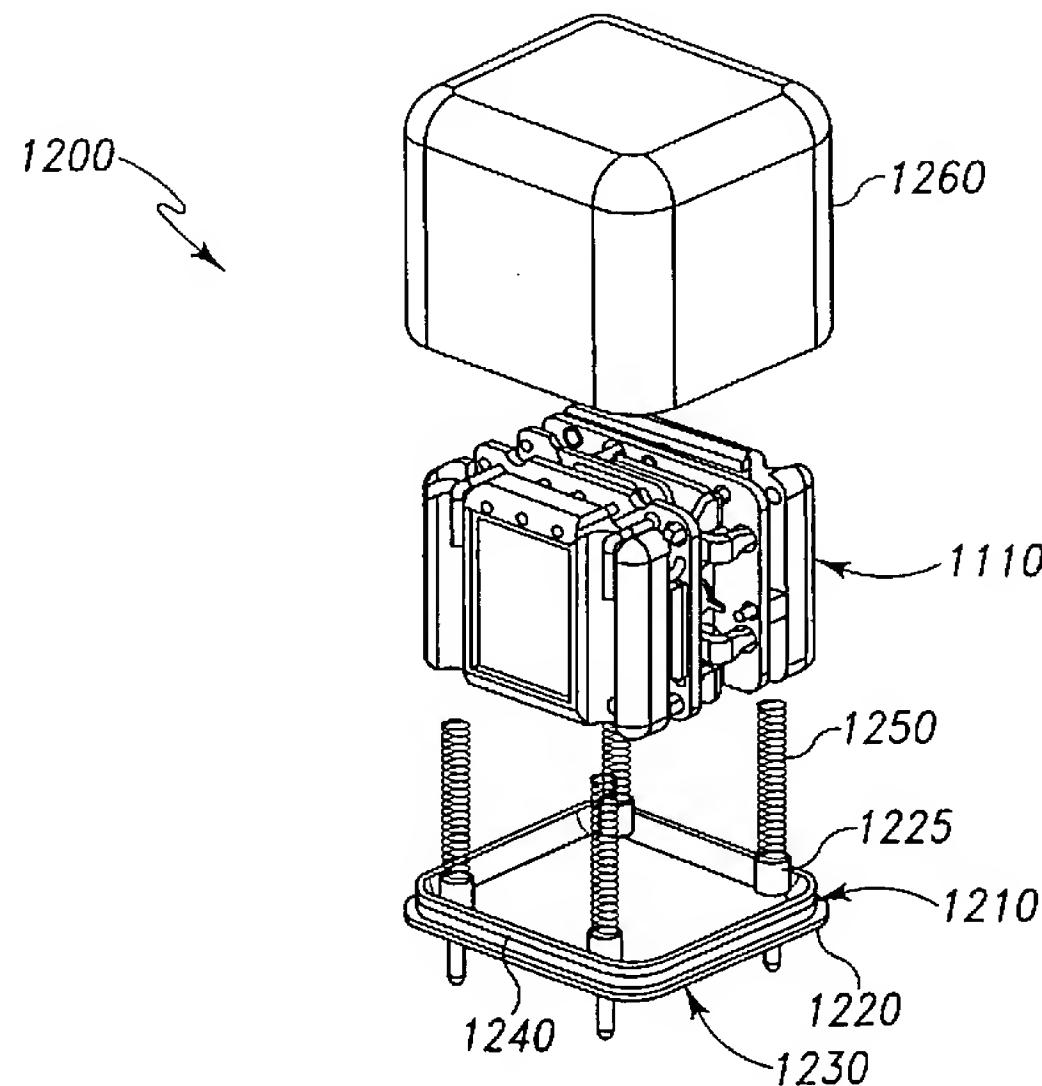
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(54) Title: DIGITAL ELECTRONICS ON SUSPENDED ASSEMBLY



(57) Abstract: A vibratory rotational rate gyroscope has a suspended assembly isolated from external vibrations by an arrangement of helical springs. This isolated assembly includes both the active components of the rotational rate gyroscope and a digital processing circuit. The digital processing circuit includes digital storage for both externally determined and internally determined unit-specific calibration values. These values provide seed values for startup processes, which improves loop startup time, and values for unit-specific electronic calibration. The digital processing circuit further converts all data to digital form. A digital communications protocol is used to transmit the calibration information and the outgoing data to and from the isolated assembly on only two conductors. Two additional conductors used for power. Four of the helical springs used in the suspension arrangement are used for these conductors such that no additional wiring is required.

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